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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
PATENT EXAMINING OPERATION

In re Application of:

Yin CHEN, *et al.*

Serial No.: 10/743,956

Filed: December 23, 2003

§ Atty Dckt No: CRYA,025/CIP

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Examiner: Christopher M. Gross

Group Art Unit: 1639

For: **OLIGODEOXYNUCLEOTIDE (ODN) LIBRARIES, THEIR USE IN SCREENING FOR ANTIBACTERIAL AGENTS, AND CATALYTIC ODN SEQUENCE FOR USE AS AN ANTIBACTERIAL AGENT**

COMMISSIONER OF PATENTS  
P. O. BOX 1450  
ALEXANDRIA, VA 22313-1450

**CERTIFICATE OF MAILING (37 CFR 1.8a)**

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date indicated below with sufficient postage as US EXPRESS MAIL in an envelope addressed to the Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*JV Budet*  
Name: *JV Budet* Date: *8-07-06*

EXPRESS Mail No: *EQ 858 249955 US*

**RESPONSE TO OFFICIAL ACTION dated February 8, 2006**

Dear Sir:

Applicant respectfully responds to the Restriction Requirement and Official Action dated February 8, 2006 with an election, a traverse of the requirement, and an amendment to the elected claims including cancellation and addition of new claims. An amendment to the specification is also presented herein for clarification and correction of obvious errors.

1. **Extension.** A five month extension of time to respond is also requested; enclosed is a check in the amount to cover the necessary extension of time and additional claim fees. In the event of a miscalculation of time or amount, the Commissioner is hereby authorized to charge any deficiency to Deposit Account 50-3748 (CRYA,025/CIP).

2. **3.73(b) Statement Update.** Attached is a new 3.73(b) Statement authorizing In House Counsel, Cindee Ewell, to act on behalf of the Assignee of the entire interest, CytoGenix, Inc.

3. **Election with Traverse.** In compliance with the Restriction Requirement, Applicant hereby elects Group III (as amended herein below), but respectfully traverses the restriction requirement on the basis of lack of distinctiveness between some of the inventions as grouped in the Examiner's restriction request. Applicant reserves the right to pursue prosecution of any non-elected claims either through joinder, petition, and/or divisional applications at a later time.

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#### **4. Traverse of Restriction Requirement.**

(a) **Groups III and IV.** Applicant acknowledges that Group IV represents discrete single-stranded DNA enzyme oligonucleotides having random flanking sequences which would likely require a search that focuses predominantly on the DNA enzyme sequence. However, Applicant notes that claims (included herein by amendment) comprising single-stranded variants of the expression vectors of Group III having 'defined' flanking sequences should not impose any significant additional burden on the Examiner if these defined ssDNA sequences are considered to be variants of the expression plasmids and are included as part of Group III.

Applicant respectfully argues that searching the known sequence of a single-stranded version can be done almost concurrently with the search for its double-stranded plasmid counterpart. Applicant therefore acknowledges and accepts the grouping distinction between Groups III and IV based on the claims as originally presented having only random flanking sequences, but respectfully requests that the Examiner view the newly added claims for the ssDNA counterparts of the 'defined' sequence expression vectors herein, as being valid members of Group III without needing further restriction.

(b) **Groups I, II and III.** Applicant also respectfully notes that Group III (claims 4-11) represents both original vectors (claims 4-7) as well as expression product vectors (claims 8-11). Applicant notes that these two subgroups should be 'linked' by claim 1 (Group I; library made by cloning into the vector of claim 4) and claims 2-3 (Group II; method of screening the library that is solely dependent upon use of the library of claim 1).

Although the progression and interrelatedness of the steps was not clearly demonstrated in the original claims as filed, the invention of the application follows a simple, step-wise progression whereby all the steps are related:

(i) construction of a useful ssDNA expression vector (pssXGb) for expression of ssDNA oligos inside a bacterial cell - involving a unique sequence modification of a preexisting ssDNA expression vector;

(ii) construction of a library useful for identifying sequences that can halt or stop bacterial cell growth - involving the cloning of random sequences (with or without the inclusion of a DNA enzyme sequence) into the bacterial ssDNA expression vector;

(iii) a method of screening this library (limited solely to the use of this library) to identify useful bacterial growth affecting sequences; and

(iv) characterization of the identified sequences as useful antimicrobial agents when induced to express its ssDNA counterpart inside the bacterial cell.

Applicant respectfully argues that steps i and ii could be easily grouped together for search purposes, but this is not requested at this time because of related prosecution in parent application 10/453,410 wherein only the library is currently being prosecuted. Applicant herein chooses to prosecute the original vector of step i, as part of Group III in the current application and simply notes the relatedness of these two inventions for the record.

Applicant strongly notes, however, that because the method of step iii (claims 2-3) can 'only' be used with the library of step ii (claim 1), these claimed inventions are not distinct and

therefore should not be divided out or grouped separately. The method of screening cannot stand alone apart from the library. As such, it is respectfully argued that method claims 2-3 should be considered as 'linking' claims between claims 1 and those that define products potentially identified by the method. Applicant makes this point to request reconsideration and redesignation of the screening method claims as 'linking' claims.


## 5. Amendments – Group III

Regardless of the traversal arguments presented above, Applicant herein elects Group III and proposes Amendments to the claims as herein presented.

It is intended that the proposed Amendments will bring the claimed invention into a better condition for allowance. In the event of a miscalculation on Applicant's part for any of the amendments or submissions included herein, the Commissioner is hereby authorized to deduct and/or credit any discrepancies from **Deposit Account No: 50-3748 (CRYA,025/cip)** as necessary.

Should the Examiner have any questions regarding this submission, please contact either the Assignee representative, Cindee Ewell, as designated on the Statement under 37 CFR 3.73(b) attached herein at 713-789-0070, or the Attorney for Applicant at the address and telephone number as designated herein below.

Respectfully submitted,

  
Malcolm Skolnick  
Reg. No. 33788  
CytoGenix, Inc.  
3100 Wilcrest Drive, Suite 140  
Houston, Texas 77042  
TEL: (713) 789-0070  
FAX: (713) 789-0702  
ATTORNEY FOR APPLICANT

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